



Agnieszka Robaszkiewicz

ASSOCIATE PROFESSOR – UNIVERSITY OF LODZ

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🆔 0000-0002-6265-5585 | Scopus bibliometric data: citations 1309 · documents 48 · h-index 19

Currently held positions

Department of General Biophysics, Faculty of Biology and Environmental Protection

University of Lodz

ASSOCIATE PROFESSOR

Scientific profile and collaborations

My scientific research focuses on transcription control and epigenetics, particularly on chromatin rearrangements during macrophage differentiation and cancer cell adaptation to *inter alia* genotoxic drugs. My most recent project aims to identify characteristic transcriptome markers and epigenetic profile of polyan euploid cells, which are responsible for cancer relapse after chemo- and radiotherapy.

At the molecular level, my young team studies the impact of BRG1, p300 and HIF1A in drug resistant phenotypes of triple-negative breast cancer and non-small lung cancer. This study led us to identification of p300 inhibitor, which is capable of sensitizing paclitaxel-resistant cancers to standard chemotherapy drugs.

In my research I make use of molecular and cell biology technics as well as bioinformatics. The latter allowed us to disclose simultaneous high expression profile of EP300, SMARCA4 and HIF1A as a clinical marker indicating cancer resistance to taxen therapy and poor patient prognosis. Currently, we are also running analysis of polyan euploid cell transcriptome by technologically innovative single-cell sequencing to identify molecular Achilles points of these cells.

Selected publications

- 2024 *Genetic dysregulation of EP300 in cancers in light of cancer epigenome control - targeting of p300-proficient and -deficient cancers* [\[link\]](#)
- 2024 *Characteristics of anticancer activity of CBP/p300 inhibitors - Features of their classes, intracellular targets and future perspectives of their application in cancer treatment* [\[link\]](#)
- 2024 *PARP1 at the crossroad of cellular senescence and nucleolar processes* [\[link\]](#)

Research grants

Principal Investigator: 3 grants: NCN, NCBiR, IDUB

Co-Investigator: 4 grants: MNiSW, hungarian governmental agencies

Beneficent: 3 fellowships: SciexNMS, FEBS, NAWA Bekker

Supervisor: 4 grants: NCN Preludium, IDUB, Student Research Grants

Obtained patents

1 patent given by Polish Patent Office

International research stays

Hungary: Department of Medicinal Chemistry, University of Debrecen

Switzerland: Department of Veterinary Biochemistry and Molecular Biology, University of Zurich

Great Britain: Oxidative Stress Group, Aston University, Birmingham

Austria: Center of Medical Research, University of Graz

Spain: BioLab, Institute of Bio-Organics Antonio González, La Laguna, Tenerife

USA: Johns Hopkins University, School of Medicine, Saint Petersburg, Florida